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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,128

11/07/2006

Mi Kyung Ha

9988.238.00

1692

30827

7590

05/27/2009

MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

CORMIER, DAVID G

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

05/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,128	Applicant(s) HA, MI KYUNG	
	Examiner DAVID CORMIER	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03052009</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7, 9, 16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 7 recites the phrase, "first and second display...divided into upper and lower double lines," and Claim 16 recites the phrase, "the divided information is...by upper and lower double lines," which are both considered to be indefinite because it is unclear if the display has a total of two lines (i.e. one upper line and one lower line) or a total of four lines (i.e. a double upper line and a double lower line).

4. Regarding Claims 9 and 18, it is unclear what an "operation database storing algorithm" is. Further, regarding Claim 18, it is unclear if information is displayed using an "operation database storing algorithm" or a "data necessary for the progress," or if the information is somehow retrieved by the above methods then displayed on a display device. Further, regarding Claim 18, it is unclear what it means for the "information according to a progress" to be displayed using "data necessary for the progress."

5. Claim 18 recites the limitation "normal washing course" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 9-11 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirano (JP 05-168789).

8. Regarding Claims 1-5 and 9, Hirano discloses the following structure:

- a. a washing machine (Figure 2);
- b. an input unit, "navigational panel" (machine translation paragraph 11);
- c. a control unit, "control device" (machine translation paragraph 13), having a laundry amount detecting unit and a display control unit (both are implicitly disclosed in the machine translation);
- d. a weight sensor (11; machine translation paragraph 13); and
- e. a display unit having a plurality of areas to display various types of information (Figure 4).

9. The remaining limitations of Claims 1-5 and 9 are considered to be use limitations (many of which are met by Hirano) and are not being given patentable weight because they do not further limit the structure of Hirano; therefore, the structure, as disclosed by Hirano, anticipates apparatus claims 1-5 and 9. With regard to the controller limitations, positively claiming the controller to be "configured to" or

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"programmed to" perform the above functions would result in the controller having that "structure," such that the controller limitations would be given patentable weight.

10. Regarding Claim 10, Hirano discloses an operation control method of a washing machine, comprising the steps of:

- a. inputting a washing course (machine translation paragraphs 5 and 12);
- b. detecting a laundry amount according to a selected washing course if an operation execution command is inputted (machine translation abstract; paragraphs 5, 9, 13 and 15);
- c. displaying a result message according to the detected laundry amount externally (broadly interpreted, this could be any displayed message where the information of the message depends on the laundry amount; see machine translation paragraphs 5-6 and 16); and
- d. controlling a washing cycle according to a laundry amount detection result (see machine translation paragraph 21) and displaying information according to a progress of the washing cycle externally (see machine translation paragraph 13, 21; Figure 4), wherein the externally displayed information is divided according to corresponding contents to be displayed on a plurality of areas, respectively (Figure 4 shows the displayed information to be divided according to type of information).

11. Regarding Claim 11, which depends from Claim 10, Hirano discloses wherein an input of a washing course is divided into a normal washing course using predefined washing algorithm (the washing machine performs a normal washing and recommends

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an optimal water level, based on a weighing, which a user may select; see machine translation paragraphs 13-17) and a selective washing course using algorithm decided by calculating and deciding data values necessary for washing according to the laundry amount detection result (unlike when controlled manually, the washing machine sets the water level based on its calculations; see machine translation paragraphs 21-22).

12. Regarding Claim 18, which depends from Claim 10, Hirano discloses that in case of a normal washing course needing no laundry amount detection, the information according to a progress of the washing course is displayed using data necessary for the progress of the washing machine (Hirano displays data related to the progress of the washing; Figure 4; machine translation paragraph 13, 21). Though Hirano has laundry amount detection during the "normal washing course" (i.e. the washing course of Hirano in which the machine does not automatically control the water level, but gives the user an option of resetting the water level), the phrase "normal washing course needing no laundry amount detection" is not being read as a negative limitation, in which there is no laundry amount detection, but is being read as simply referring to the normal washing course.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano (JP 05-168789).

15. Hirano is relied upon as applied to claim 10. Hirano does not expressly disclose that in case of a normal washing course using a predefined washing algorithm, the laundry amount detecting step and a corresponding data calculating step are not carried out.

16. It is considered to be obvious to one of ordinary skill in the art to have a washing cycle, in addition to the washing cycles of Hirano, in which there would be no need to detect the laundry amount or to have a corresponding data because there are times when a user knows the washing machine will supply an improper amount of water based on its determination of the fabric amount, for example, during the washing of spongy fabrics or delicate lace fabrics. Because there could be fabric types for which the washing machine will supply an improper amount of water, and the results would be predictable, namely, providing a user with a useful cycle, it is considered to be obvious to have a cycle which simplifies the operation of the machine and merely supplies a set amount of water without determining the weight of the fabric and performing calculations.

17. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano (JP 05-168789) in view of Nakano et al. (US 5,230,228).

18. Regarding Claims 13 and 14, Hirano is relied upon as applied to Claim 10. Hirano discloses displaying a variety of data (Figure 4) related to washing status, including a washing water level (Figure 4, parts 25-29). Hirano does not expressly

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disclose an announcement message indicating that the laundry amount is being detected from a time point of performing a laundry amount detection according to an input of an operation execution command to a time point of completing the laundry amount detection, as in Claim 13, or that when the laundry amount detection is completed, information of a corresponding washing time is externally displayed.

19. Nakano discloses alerting a user of the status of the machine, particularly that the machine is detecting the cloth quantity by flashing a cloth quantity display during the detection process (col. 4, line 65 to col. 5, line 9)

20. Because it is known in the art to alert a user about the status of a machine, such as alerting a user that a cloth detection process is occurring, and the results of the modification would be predictable, namely, an effective way for the user to know the state of the machine, it would have been obvious to one of ordinary skill in the art at the time of the invention to have an announcement message indicating that the laundry amount is being detected while it is being detected. The resulting washing machine with an announcement message would yield the claimed invention. And specifically regarding Claim 14, it would have been obvious to display information corresponding to a washing time, and would have yielded predictable results, namely, allowing a user to know how much time is remaining in a washing cycle.

21. Claims 6-8 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirano (JP 05-168789) in view of Behrens et al. (US 2003/0154560).

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22. Regarding Claims 6-8 and 15-17, Hirano is relied upon as applied to Claims 5 and 10, respectively. Hirano has a plurality of LED displays arranged to show a variety of types of data relating to the washing process (Figure 4; machine translation paragraphs 12 and 13).

23. Regarding Claims 6-8 and 15-17, Hirano does not expressly disclose that the display is an LCD panel with first and second display units divided into a plurality of areas having the information being divided across areas. Hirano also does not expressly disclose that the first and second display is divided into upper and lower double lines or that one area of the display displays washing course and water temperature or a laundry detection result of the laundry or an announcement message according to the laundry amount detection or a washing time or washing water level according to an input of the input unit is displayed on the other area.

24. Behrens discloses a laundry appliance having a touch screen LCD, the screen can be programmed to have different information on different areas of the screen (abstract; Figures 2A, 2B, 3, etc...).

25. Because it is known in the art to have LED indicators showing a variety of types of information in separate areas, as in Hirano, or an LCD unit, as in Behrens, in a washing machine, and the results of the substitution would be predictable, namely, an effective way to display information, it would have been obvious to one of ordinary skill in the art at the time of the invention to have an LCD unit to display various types of information about the washing cycle in separate areas of the screen, such as washing course, water temperature, laundry amount detection, washing time or water level.

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Further, regarding the limitations of having the LCD divided into first and second units divided into a plurality of areas, having upper and lower double lines, or having particular types of information on particular portions of the LCD screen, these limitations are considered to be obvious design choices, which a user could program the LCD to display, and are being given little patentable weight. The resulting washing machine with LCD unit would yield the claimed invention.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CORMIER whose telephone number is (571) 270-7386. The examiner can normally be reached on Monday - Thursday 8:30 - 6:00.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

/DGC/
David Cormier
05/25/2009